

**REMARKS**

Claims 1-50 are pending in the present application. All of the claims have been indicated as being rejected. By this amendment, claims 18, 23, and 33 have been amended to cure discrepancies in their dependencies. In light of following remarks, withdrawal of the rejections is requested.

**REJECTIONS UNDER 35 U.S.C. §112**

Claim 21 was rejected under what ostensibly appears to be §112, second paragraph since this paragraph is quoted in the preface to the rejection. Notwithstanding, the substance of the rejection of claim 21 appears to be an allegation that the claim is not compliant with 35 U.S.C. §112, second paragraph if 35 U.S.C. §112, sixth paragraph treatment of the claim is to be invoked (See e.g., M.P.E.P. 2181 Paragraph III). In this regard, the Office Action makes the extraordinary allegation that functions recited with the word “means” are “an attempt to use a ‘means’ clause to recite a claim element as a means for performing a specified function,” but “since no function is specified by the word(s) preceding ‘means,’ it is impossible to determine the equivalents of the elements.” Applicants respectfully traverse.

It is assumed, first, that the intent here was to state the words *succeeding* the word “means” since no words *precede* the word “means” in each clause of claim 21. Secondly, Applicants respectfully submit, before presenting arguments below as to why claim 21 is fully compliant with 112, second paragraph, that claim 21 is unremarkable concerning its format as a means plus function claim. That is, the format of claim 21 matches the classic format of at least tens of thousands, if not hundreds of thousands, of allowed means plus function claims over thousands of allowed U.S. Patents using the words “means for” succeeded with a functional recitation (e.g., “receiving” or “constructing”).

In connection with the examination of means plus function claims, the function of the PTO is to first identify if a claim warrants 112, sixth paragraph treatment (M.P.E.P. 2181, paragraph I), and then, among other things, to subsequently determine if the claim complies with 112, second paragraph when such treatment is warranted. In connection with this second function, the PTO is to determine if one skilled in the art could identify the structure, material or

acts from the description (See e.g., M.P.E.P. 2181 Paragraph III). If so, then the requirements of 35 U.S.C. 112, second paragraph are satisfied. It is respectfully submitted that one skilled in the art would indeed be able to identify the structure, material or acts from the present description for the recited functions (e.g., “receiving”, “selecting”, “constructing”, etc.). The rejection does not point out how this would not be the case and does not appear to even contemplate such an analysis.

In light of the above discussion, it is submitted that the function of the PTO is not to make an explicit determination of whether if a claim is compliant with 112, sixth paragraph, which appears to be, *de facto*, the reasoning behind the rejection in the present Office Action. Indeed the sixth paragraph of section 112 contains no mandate to which an Applicant must comply as wrongly asserted in the Office Action (i.e., “it is impossible to determine the equivalents, as required by 35 U.S.C. 112, sixth paragraph). Rather, the sixth paragraph of section 112 actually states that “[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” Thus, this paragraph actually gives applicants license to use means plus function claims without the recitation of structure, material or acts, with the only mandate being placed on how such claims should be construed in their breadth of equivalents (by the PTO or courts). No mandate is placed on Applicants to write claims in a particular manner such that they must somehow cover some range of equivalents. Nonetheless, Applicants submit that the functional language in the claims is clear and definite such that one skilled in the art construing the claims would indeed find corresponding structure, material or acts, as well as equivalents supported in the present specification.

It is further noted here that the case law cited in the present Office Action (i.e., *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967)) stands for the proposition that means plus function claims are not limited to some formulaic format that would give rise to 112, sixth paragraph treatment (See e.g., M.P.E.P. 2181, Paragraph I). Thus, the further assertion in the present Office Action that “there are not description [sic] elements describing the word ‘means’” is clearly at odds with the case law also referenced in the present Office Action. Accordingly,

Applicants respectfully submit that claim 21 complies with §112, second paragraph, and request that the rejection of claim 21 be withdrawn.

The present Office Action also appears to have rejected claims 1, 11, 21, 25, and 30 under 35 U.S.C. §112, second paragraph. In particular, the Office Action states that “applicant is required to provide relationships between ‘signaling data for the first [sic] user station; application data for the second user station’ and ‘indications of signal quality associated with a plurality of user stations.’” This unorthodox request, however, is not tenable and no basis or reasoning for why this request is warranted has been presented in the present Office Action. Applicants respectfully submit that these claims, as presented, are clear and definite and to change the claims as suggested would change the claimed subject matter outside the described aspects of the invention.

It is noted that if the Office Action is trying to allege here that the claim fails to interrelate essential elements of the invention and, thus, is rejected as such for failure to point out and distinctly claim the invention (See M.P.E.P. §2172.01), such an allegation is also not tenable. Taking claim 1, as an example, the received “indications of signal quality associated with a plurality of user stations” are then used to select first and second user stations based on these indications. A first packet containing signaling data is constructed containing signaling data for the first user station and application data for the second user station. Thus, the received indications of signal quality are used, for purposes of the claimed subject matter, to select first and second user stations. The distinct data consisting of signaling data and application data in the first packet for the selected first and second user stations need not have any relationship to the indications of signal quality to enable one skilled in the art to practice the claimed subject matter. Thus, for purposes of the claimed subject matter, it is not necessary to show relationship between the signaling data and application data and the indications of signal quality as they are not necessarily directly functionally related or do not directly intercooperate.

Furthermore, as stated in §2172.01 of the M.P.E.P., “[a] claim does not necessarily fail to comply with 35 U.S.C. 112, second paragraph where the various elements do not function simultaneously, are not directly functionally related, do not directly intercooperate, and/or serve independent purposes.” Accordingly, issuing a mandate that elements in a claim that do not directly relate functionally, as is the case presently, must be somehow claimed to show a

relationship is contrary to established case law. Accordingly, Applicants respectfully submit that this rejection should be withdrawn.

#### **CLAIM OBJECTIONS**

Claim 18 has been objected to based on its dependency on itself. The amendment to this claim herein is believed to address and obviate this typographical error.

#### **DOUBLE PATENTING**

Claims 1, 10, 11, 21, 25, 30, 34, 40, 46, and 49 have been provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 11, 14, 19, 23, and 26 of U.S. Application Serial No. 10/782,186. Without conceding that this rejection has any validity, Applicants submit that the rejection is obviated by the filing of a terminal disclaimer, filed concurrently herewith.

#### **REJECTIONS UNDER 35 U.S.C. §102**

Claims 1, 3, 4, 11, 14, 21, 25, 30, 34, 40, and 46-49 were rejected under 35 U.S.C. §102(e) as being anticipated by Shattil (U.S. Pub. No. 2004/0086027 A1). Applicants respectfully traverse this rejection for the following reasons.

Claim 1 features, among other things, “selecting a first user station and a second user station to receive data from a base station, based on [received] indications of signal quality.” Shattil, in contrast, does not teach or suggest this element. In particular, paragraph [0206] of Shattil merely teaches that a base station 1310 “selects subcarriers 1315 for transmission to each subscriber...” This teaching is merely selecting subcarriers for transmission to each subscriber from the base station, and not a selection of particular user stations to receive data from the base station based on received indications of signal quality. Selecting subcarrier frequencies for transmission to each subscriber is not the same as an explicit selection of particular first and second user stations.

Claim 1 further features “constructing a first packet containing signaling data for the first user station and application data for the second user station.” Shattil, in contrast, only teaches that mapped data symbols include at least one set of data symbols having one of numerous

known codes or data symbol sequences (See claims 3 and 4 of Shattil, which was asserted as teaching the above claim element). The disclosed mapping of data symbols to have symbols indicating coding is not tantamount to a teaching of a constructed packet. Moreover, this teaching in Shattil is clearly devoid of any teaching or suggestion of a packet containing one type of data (i.e., signaling data) designated for a first user station and another type of data (i.e., application data) designated for a second user station. No teaching or suggestion is given in Shattil whether the mapped data symbols are part of a larger constructed packet having two types of data respectively designated for first and second user stations.

Additionally, claim 1 features “super-imposing a second packet upon the first packet, the second packet containing application data for the first user station.” Shattil simply does not teach or suggest this feature. The paragraphs cited as putatively teaching this element (paragraphs [0230] and [0231] of Shattil), actually teach time or frequency division multiplexing schemes to divide fixed forward link resources (i.e., throughput) among all subscribers (See first sentence of paragraph [0230] for the stated purpose of the multiplexing). As one skilled in the art would readily recognize, this disclosed concept of multiplexing fixed resources to efficiently divide the resources is a completely different concept from “super-imposing a second packet upon a first packet” which serves to add data from the second packet to the first packet.

In light of the foregoing, Applicants submit that Shattil does not teach or suggest all of the elements of claim 1. Furthermore, since independent claims 11, 21, 25, 30, 34, 40, 46, and 49 include elements similar to claim 1, these claims are also not anticipated by Shattil for at least the same reasons.

Concerning rejected dependent claims 3, 4, 6, 7, 14, 17, 19, 23, 33, 47, and 48, these claims are also submitted to be allowable over Shattil due to their respective dependencies on allowable base claims.

It is noted here that the present Office Action further indicated that claims 2, 5, 8, 10, 12, 13, 14, 16, 26-28, 31, 32, 35-39, 41-45, and 50 are “rejected due to their dependency to parent claims” without indicating any bases for substantive rejections of these claims. Applicants respectfully note that the M.P.E.P. directs that if the base claim is rejected, the dependent claim should be objected to rather than rejected, if it is otherwise allowable (i.e., it cannot not be rejected on substantive bases). See e.g., M.P.E.P. §608.01(n). Thus, claims cannot be rejected

based on their dependency, but must be rejected on substantive reasons. Otherwise, no dependent claims would ever be considered objectionable if dependent on a substantively rejected claim. Applicants request either that these claims be indicated as objectionable, or ask that a rejection on the merits be properly offered in a subsequent non-final Office Action, if need be, should the intent be to issue a substantive rejection of these claims.

**REJECTIONS UNDER 35 U.S.C. §103**

Claims 9, 18, 24, and 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shattil in view of Jiang et al. (U.S. Patent No. 7,046,678). Applicants respectfully traverse this rejection for the following reasons.

Since each of claims 9, 18, 24, and 29 are dependent on independent claims believed to be allowable (i.e., claims 1, 11, 21, and 25), Applicants submit that these claims are allowable for at least the same reasons presented above, as well as on their own merits.

In light of the above amendments and remarks, and with the aforementioned terminal disclaimer filed, all claims in the application, i.e., claims 1-50 are submitted to be patentable over the prior art of record. Applicants believe the application is in condition for allowance and an early allowance is respectfully requested, accordingly.

In the event of any fees that may be due or any overpayments that may be associated with this response, please charge or deposit the amount to Deposit Account No. 17-0026.

Respectfully submitted,

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